NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Pioneer Americas, Inc.
P.O. Box 86, 8000 West Lake Mead Drive
Henderson, Nevada 89009

Permit Number: NEV2000515

Location: Pioneer Americas, Inc.
8000 West Lake Mead Drive, Henderson, Clark County, Nevada
Basic Management Incorporated (BMI) Complex
T22S, R62E, Section 12

Latitude: 36° 02' 44" N
Longitude: 115° 00' 34" W

General Description of Facility and Discharge: The Pioneer Americas, Inc. (formerly known as Pioneer Chlor Alkali Company and also as Stauffer Chlor Alkali Company) plant is located in Henderson, Nevada on the western part of the Basic Management Incorporated (BMI) complex, which houses several major chemical production companies. These companies currently consist of Pioneer Americas Inc., Kerr-McGee Chemical Corporation, Titanium Metals Corporation of America (TIMET), ChemStar and Saguaro Power Company.

The BMI complex was originally the Basic Magnesium facility which was constructed by the U.S. Government primarily to produce magnesium metal for wartime use in the early 1940's. Stauffer leased and operated the chlorine-caustic soda (chlor-alkali) manufacturing plant from 1946 until 1952. In 1952, Stauffer purchased the plant and 350 surrounding acres. From 1951 to 1984, Stauffer operated the Agricultural Chemicals Division, which manufactured pesticides and organic chemical products at the Henderson site. From 1947 to 1983, Montrose Chemical Company subleased about 20 acres from the Stauffer site to operate an organic chemical plant. In 1988, the ownership of Stauffer Chlor Alkali Company was transferred to Pioneer Chlor Alkali Company, Inc. In 1999, the name of the Company was changed to Pioneer Americas, Inc. (Pioneer).

The Pioneer plant is a typical "chlor-alkali plant" which manufactures chlorine gas, caustic soda, hydrochloric acid and bleach from sodium chloride and water. Products of the facility are shipped via pipeline, rail cars and trucks. Process areas include the brine makeup area, chlorine area, liquefaction area, caustic plant, acid plant and steam plant. Process recyclable waters and neutralized wastewaters are discharged to lined evaporation/containment ponds. The following is a listing of the ponds with a general description of their intended use. These ponds were formerly permitted to receive discharges under NPDES permit # NV0020923.

Impoundment	Application	Liner
Evaporation Pond: **CAPD 9** Surface Area: 304,920 ft²	Receives neutralized process wastewaters via piping from the chlorine area, liquefaction area, caustic plant, bleach area and occasional wastewater (consists of blow down from the demineralizer process, boilers and cooling towers) from the Saguaro Power Company. Pioneer will pump out the excess neutralized process wastewater to the evaporation pond CAPD 7 listed in the permit #NV0020923 in order to maintain a minimum of two feet of freeboard in the	HDPE double liners with leak detection/collection system. Constructed in 1993 with 60 mil HDPE primary and secondary liners. A leak in the primary liner was detected in 1999. Currently liquid is being pumped daily from the leak detection/collection sump back into the pond to reduce hydraulic head on the secondary liner. Pioneer regularly inspects and tracks

	pond at all times. Pioneer intends to discontinue the use of this pond by the year 2004-2005.	pumping operations.
Recycling Pond: **CAPD 6A** Surface Area: 39,300 ft²	Receives process water overflows from above ground recycle tank and wastewater from the Saguaro Power Company. Also, receives overflows (consists of cooling tower blow down, caustic plant recycle tank overflow, wash water from the muriatic acid plant and rail car wash water) from above ground collection tank. This water is then pumped back to the brine plant for reuse in the Plant process. Pioneer intends to replace this pond with an above ground tank in the year 2004-2005.	HDPE double liners with leak detection/collection system. Constructed in 2000 with 60 mil HDPE primary and secondary liners.
Brine Settling Pond: **CAPD 2** (Hypo Pond)	This pond is currently used for disposal of filtered brine muds. This pond receives no process wastewaters.	PVC double liners with leak detection system. Constructed in 1974 with 20 mil PVC primary and 10 mil PVC secondary liners.

All other past and existing Inactive Ponds (such as CAPD 1, CAPD 3, CAPD 4, CAPD 5, CAPD 6, CAPD 8, ACD 1 and ACD 2) receive no process waters. No monitoring will be required for these Inactive ponds. Pioneer intends to close these Inactive ponds in accordance with the requirements of Bureau of Corrective Actions (BCA), NDEP. The permittee stated that there were five (5) other ponds located on Pioneer property that were closed under RCRA criteria by Montrose Chemical Company of California.

Receiving Water Characteristics: The permitted effluent to the ponds is considered to be zero discharge and will not be discharged to the groundwater or surface water of the State. There are several existing ground water monitoring wells upgradient and downgradient of the ponds to ensure that operations of the facility do not degrade groundwater of the State. Two new groundwater monitoring wells (B20 and B21) will be constructed under this proposed permit upgradient and downgradient of pond CAPD 9.

Flow: CAPD 9: The permitted 30-day Average flow of discharge to pond CAPD 9 is 40,000 gpd.
CAPD 6A: The permitted 30-day Average flow of discharge to pond CAPD 6A is 864,000 gpd.

Proposed Effluent Limitations: The discharge shall be limited and monitored by the permittee as specified below for the ponds CAPD 9 and CAPD 6A. The average quantity of brine muds shall be monitored in CAPD 2 only and reported quarterly. Effluent samples taken in compliance with the monitoring requirements specified below shall be taken at the ponds.

PARAMETERS	**EFFLUENT DISCHARGE LIMITATIONS**	**MONITORING REQUIREMENTS**	
	30-Day Average	**Measurement Frequency**	**Sample Type**
Flow, gpd	CAPD 9: 40,000 CAPD 6A: 864,000	Continuous	Calculate
pH	Monitor & Report	Quarterly	Discrete

Chlorides, mg/l	Monitor & Report	Quarterly	Discrete
Sulfates, mg/l	Monitor & Report	Quarterly	Discrete
Total Dissolved Solids, mg/l	Monitor & Report	Quarterly	Discrete
Average Quantity of Brine muds in CAPD 2, tons	Monitor & Report	Quarterly	Calculate

If no discharge is made to the ponds during the quarter, please report as no discharge.

Groundwater Monitoring Wells: Two new groundwater monitoring wells (B20 and B21) will be constructed under this proposed permit upgradient and downgradient of pond CAPD 9. Groundwater monitoring wells shall be monitored by the permittee as specified below. Groundwater monitoring wells (B11, B12, B13, B20 and B21) for the active ponds CAPD 6A and CAPD 9 shall be monitored quarterly. The pond CAPD 2 receives no process water and is used for disposal of filtered brine muds. Groundwater monitoring wells (B04, B05 and B06) for pond CAPD 2 shall be monitored annually. Groundwater monitoring wells (B01, B02, B03, B07, B08, B09, B10, B16, B17, B18 and B19) for all other inactive ponds shall be monitored annually.

PARAMETER	REQUIREMENTS	FREQUENCY	SAMPLE TYPE
Depth to Groundwater, ft	Monitor & Report	Quarterly for active ponds, Annually for CAPD 2 and inactive ponds.	Field Measurement
Groundwater Elevation, ft	Monitor & Report	Quarterly for active ponds, Annually for CAPD 2 and inactive ponds.	Calculate
pH	Monitor & Report	Quarterly for active ponds, Annually for CAPD 2 and inactive ponds.	Discrete
Chlorides, mg/l	Monitor & Report	Quarterly for active ponds, Annually for CAPD 2 and inactive ponds.	Discrete
Sulfates, mg/l	Monitor & Report	Quarterly for active ponds, Annually for CAPD 2 and inactive ponds.	Discrete
Total Dissolved Solids, mg/l	Monitor & Report	Quarterly for active ponds, Annually for CAPD 2 and inactive ponds.	Discrete

Groundwater monitoring is required to ensure that operations of the facility do not degrade groundwater of the State. If dry, please report as dry.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit authorizing the facility to discharge to the double-lined evaporation/containment ponds (zero discharge to groundwater or surface water) subject to the terms and conditions contained within the permit, is being sent to the **Henderson Home News and Las Vegas Review-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until *March 16, 2001*, which is a period of at least 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Schedule of Compliance and Special Conditions: The permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance.

a. The permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

b. **Within 90 days of permit issuance**, the permittee shall construct two new Groundwater Monitoring Wells (B20 and B21) upgradient and downgradient of the pond CAPD 9 and perform Water Chemistry Analysis of the groundwater for the parameters listed on page 3. Groundwater monitoring wells shall be constructed in accordance with the regulations established by State Engineer's office.

c. **Within 90 days of permit issuance**, the permittee shall submit an Operations and Maintenance Manual (O&M) to the Division for review and approval. The O&M Manual shall contain both Evaporation Pond Management Plan and Groundwater Monitoring Plan. A site map shall also be included showing the physical locations of all groundwater monitoring wells.

There are no special conditions.

Rationale for Permit Requirements: Effluent monitoring is required to track the quantity and quality of the wastestream being discharged to the double-lined ponds for disposal by evaporation (zero discharge to groundwater or surface water). There are no effluent limits because the facility does not discharge to groundwater or surface water of the State and requires no pretreatment.

Groundwater monitoring is required to ensure that operations of the facility do not degrade groundwater of the State.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Prepared by: Tobarak Ullah
February 2001
i:\...\pioneer\grdwater\factsht.fac